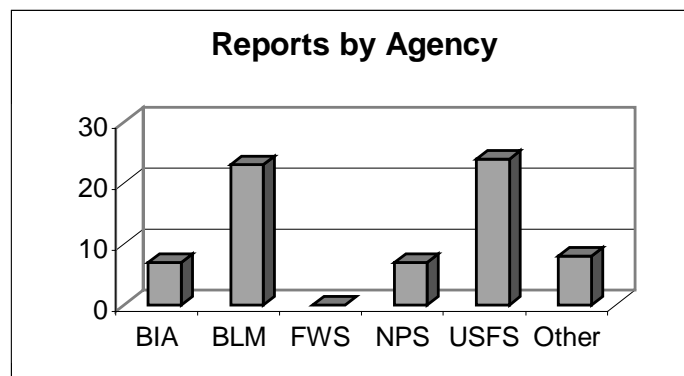


2000 SAFENET REVIEW

This season was the inaugural year for SAFENET. The goal of the program is to function as a collector of raw data to be used to monitor fire safety trends. At the same time, SAFENET provides a means of sharing safety information throughout the fire community and, hopefully, helps facilitate corrective actions.

Between the beginning of the year and the first of October, 68 SAFENETS were filed. Although this is a relatively low number for a fire season of this magnitude, we are still encouraged by this first year result. Because of the geographical and agency diversity of the filings, this can be considered a representative sample of the wildfire community. This report summarizes the SAFENETS by reporting agency, contributing factors, jurisdiction, incident type, incident activity, stage of incident, and management level of the fire.

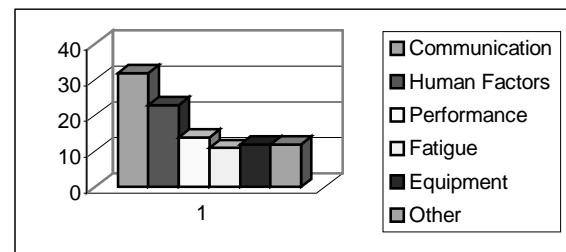
Reporting Agency



Of the reports filed, seven of them were BIA, twenty-three by the BLM, seven by the NPS, twenty-four by the USFS, and eight by other agencies, predominantly state.

Contributing Factors

SAFENET categorizes each response into one of nine contributing factors; communication, human factors, performance, fatigue, equipment, fire behavior, environmental, situational awareness, or other. The results are as follows.

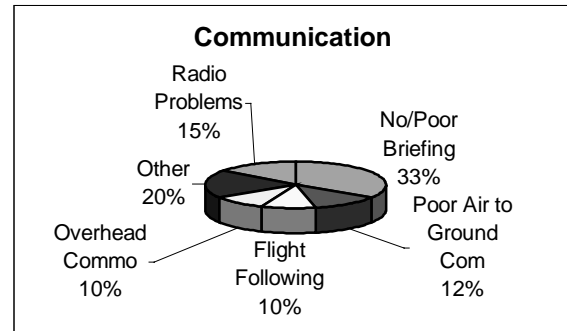


Communication

Clearly the greatest concern in this group of reports is communication. Of the 68 SAFENETS reviewed, 32 report "problems with communication" as being the major factor the health and safety concern. Of these, 21 identify a breakdown in the transfer of information. The majority of the respondents cited "no briefing" as the biggest communication problem.

The following summations are taken from the SAFENETS, and describe the relevant issue:

- no field briefing prior to firing operation
- no briefing - frequency changes not communicated
- lack of briefing
- briefing not given
- no overhead communication w/IC
- poor communication w/IC
- crews not receiving information
- about fire status
- lack of info, no knowledge of nearby burn-out operation
- no briefing, no frequency assignments
- no overhead communication
- no briefing on arrival
- lack of fire info being communicated
- briefing with old, outdate information, no fire weather
- briefing not given, organization not identified
- crews not notified of aerial seeding operation during rehab
- need better communication between ground crews and air ops
- good air to ground comm between pilot and ground person on site required
- different agencies working in USA should be briefed on procedures for heli ops
- no briefing until told to receive one, no manifest
- burning out under module w/out any warning/communication
- no lookouts, lack of communication, overhead fatigued, upslope wind, slop-over



9 reports identify a problem with communication as it relates to frequency and use. The majority of these are specific to aviation operations and of the aviation problems, 4 of them were specific to flight-following interferences.

- helicopter drops without crew notification - crew nearly hit with snag
- flight-following frequency being used by many other operations
- paging and flight-following activities on same frequency
- flight-following interfered with by paging on same frequency
- flight following and dispatch of resources on same frequency
- no comm between ground crews & helicopters doing bucket work.

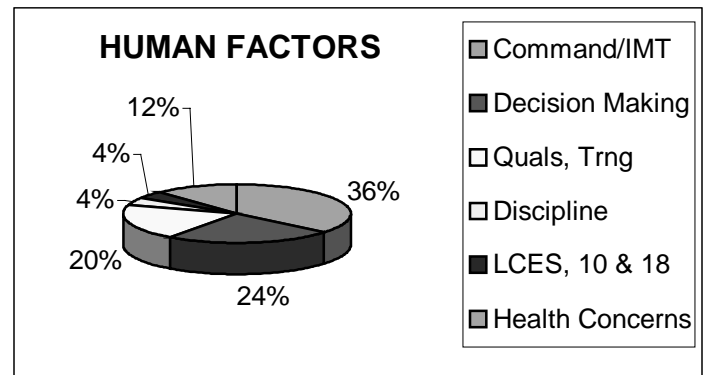
- helicopter drops without ground contact
- additional radios with approved incident frequencies would aid communication
- frequency coordination

9 reports identify communication problems of other varieties.

- a need for temporary repeaters
- 3&4 relays
- fire operations using same channel as LE, SAR, Medevac etc...
- not enough repeaters
- no personnel in dispatch during fire operations
- crew boss unable to make radio contact during dangerous situation
- bad communication - crew boss unable to make contact
- delayed medical attention
- sent drivers out w/out radios (gsul) didn't have enough on incident

HUMAN FACTORS - 23

- coordination difficulties
- breakdown in command and control.
- unified command conflicts
- under staffed with resources for operation
- no command structure
- IC left before crews were demobed, no logistical support (food & medical)

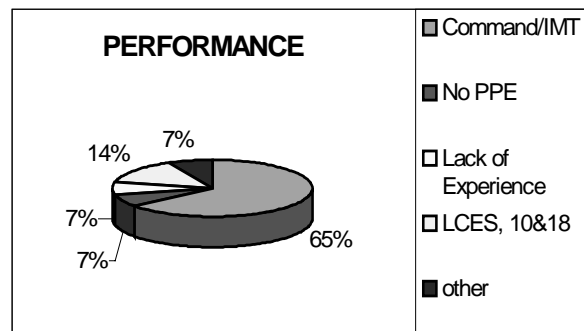


- commander gave improper, unsafe direction...
- chain of command, span of control
- crew members w/limited or no wildland experience
- crew forced to run - wrong decision for accessing fire
- of 10 orders, 7 violated. Of 18 situations, 10 violated.
- no MEDL on IMT
- crew advised to break speeding laws, unsafe driving
- ground support didn't know they had 2x4 vehicles
- basic needs of crew not being met
- lack of hand-washing facilities, porta-potties not maintained
- lack of experience in fire behavior & sound line construction methods
- lack of training and/or experience
- Need fulltime FMO - unqualified FF was IA alone & operating chainsaw.
- DIVS(t) conducting burnout below IHC without notification, after told not to.

- DIVS with no PPE - no shelter, no nomex, no hard hat, no gloves
- bucket drops from sewage pond - dipping ordered by LEO not assigned to fire
- red card currency issues
- food service not using gloves
- alcohol use, lack of discipline, assault

PERFORMANCE - 14

- lack of command structure
- no PPE DIVS
- lack of experience
- chain of command
- no command structure
- IC sleeping - no backup
- IC operating bulldozer
- 2 reporting 10, 18 and LCES violated
- FF stay clear of load during long line ops until pilot releases
- IMT disregard for well-being of crew, unable to obtain dry clothing
- shifting people while helicopters loading, poor helispot management
- DIVS(t) should not have been involved in burnout decision & failed to notify
- Lack of discipline, lack of screening, failure to deal with a situation



SITUATIONAL AWARENESS - 31

All but 1 have been identified in other contributing factors. Having no briefing, and the lack of command structure were the majority. The only report that identifying situational awareness as the primary issue, was the grizzly bear near spike camp.

FIRE BEHAVIOR - 18

Only 2 SAFENETS identify a situation where the safety and health issue was directly related to fire behavior. Both were fire behavior problems caused with wind changes. Several report fire behavior not being communicated to crews, and those are identified in the communications section.

ENVIRONMENTAL- 13

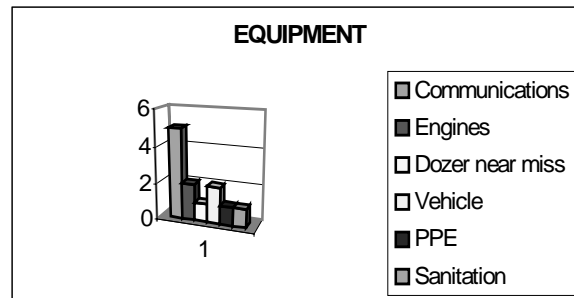
There were no specific environmental causes outside the human factors realm.

FATIGUE - 11

- 4 cite failure to follow work rest guidelines.
- 1 reports single resources driving alone.
- 1 reports an IC sleeping while crews are working and leaving no-one in charge.
- 2 report overhead team too fatigued.
- 3 checked the fatigue box but did not address it specifically in narrative.

EQUIPMENT - 12

- 4 communications equipment
- 1 contract engines not safe
- 1 dozer nearly ran over sleeping FF
- 1 engine electrical failure
- 2 dozer boss got 2x4 vehicle from ground support needed 4x4
- 1 no PPE due to no knowledge
- 1 lack of hand-washing facilities, porta-potties not maintained
- 1 not enough radios on incident to give them to drivers



OTHER - 12

- 2 pack test concerns
- 1 lack of burnout on dozer line
- 1 contaminated water given to crews
- 1 resources without quals
- 1 small arms ordnance explosion during FF
- 1 crew without crew rep for 4 shifts
- 1 hiring of unqualified crewmen on type 2 crew
- 1 no medl on fire
- 1 rx fire crew w/no ppe or knowledge of such
- 1 helispot disorganized
- 1 alcohol abuse by crew, disorderly conduct, assault

INCIDENT NAME

ABC MISC.
BUCK SPRINGS
DEAD HORSE
ENCAMPMENT
FIRST BOX FIRE
HAPPY
IRON MINE LAKE
MILE MARKER 185
24 COMMAND
POT MOUNTAIN
RIVER RESCUE
UPPER SLIDE
BRANTLEY
MONTANA FIRE
PLASKET 2
SULA COMP
PAULINA DUMP

ALTONA FIRE
CERRO GRANDE
DIVIDEND FIRE ICP
FALSE ALARM #3
FLAT CREEK
HI MEADOW
JENNY LAKE
MUDDY CREEK
N/A
PRESCRIBED BURN
SHAGGY FIRE
YANCE CANYON
EASTSIDE COMP
BURGDORF JUNCTION
N/A
PECHANGA
CLAY CREEK II & OLD GROWTH

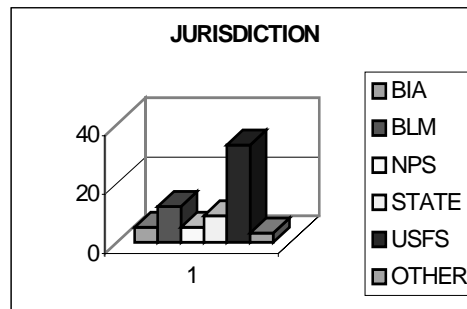
BASIN FIRE
CLEAR CREEK
EMERGENCY
FIRE RECON
GRANDDADDY
HI MEADOW-IA
LOWER BELMONT
NEW SUB 2
OLD 80 FIRE
RANGE FIRE
SOUTH CRICKET
YANCE FIRE
YANCE
TROY SO/FREZKAT
MIDDLE FORK
MAUDLOW/TOSTIN

BOSQUE
CLOVER
CLEAR CREEK

HANFORD
IRON MINE
MANTER
OLD 80 FIRE
PACK TEST
RESPONDING TO
SWEETWATER
GLADE/TETON COMP
MIDDLE FORK COMP
MONTURE/SPREAD
BEAVER CREEK
OUTLET FIRE
CLEAR CREEK

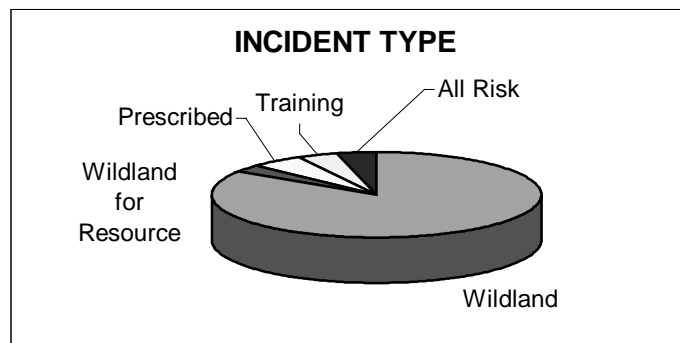
INCIDENT JURISDICTION

BIA = 5
BLM = 12
NPS = 5
State = 9
USFS = 33
Other = 3



INCIDENT TYPE

Wildland = 64
For Resource Benefit = 2
Prescribed = 4
Training = 3
All Risk = 3

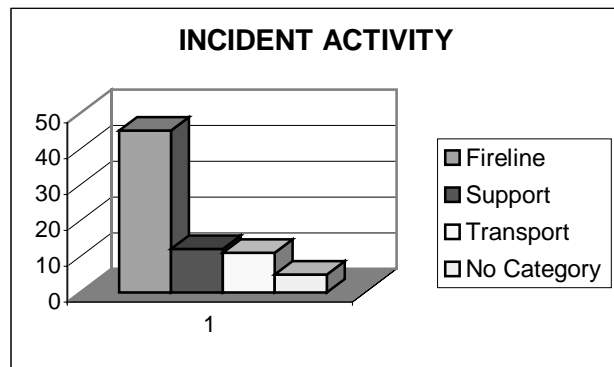


INCIDENT ACTIVITY

Of the SAFENETS filed, 45 occurred on the fireline, 12 in support, 11 in transportation, and 5 in no particular category.

Fireline-45

- 21 communications issues.
- 14 command and organizational structure issues.
- 4 lack of experience
- 3 fatigue and violation of work rest ratios
- 3 violating LCES



Support = 12

Transport = 11

No Category = 5

- 2 pack test
- 1 aerial seeding
- 1 flight following
- 1 Rx burn - shells exploding

STAGE OF INCIDENT

Initial Attack = 29

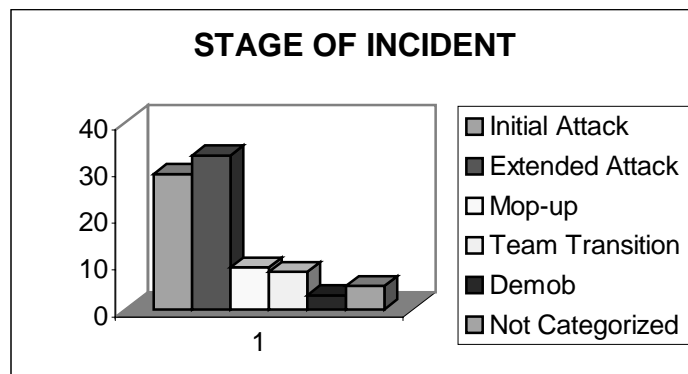
Extended Attack = 33

Mop-up = 9

Transition/Transfer of command = 8

Not Categorized = 5

Demob = 3



POSITION TITLE

The SAFENET respondents are listed by the positions they held on the fire.

Acting FMO (1)
 Center Manager (1)
 Crew Rep (1)
 Cwn Hemg (1)
 District Fire Mgmt Officer (1)
 Edsp/ladp (t) (1)
 Engine Module (1)
 Engine with Crew (1)
 Fire Staff (1)
 Firefighter Engine Crew Member (2)
 Firefighter Engine Operator (1)
 Hart's IMT (1)
 Hotshot Superintendent (2)
 I C Type 4/Engine Boss (1)
 Incm (1)
 Observes Rx Fire Operations (1)
 Sof1 (1)
 Suppression Manager (1)
 Training Specialist (1)
 No Category (2)
 Helicopter crewperson(2)
 Home Unit (2)
 Dozer Boss (2)
 Firefighter - Fft1
 EDRC
 crew

None Given (1)
 Crew Boss (5)
 Crew Supervisor (1)
 Deputy FMO (1)
 District Fire Warden (1)
 Engine Boss (4)
 Engine Supervisor (1)
 Fire Center Manager (1)
 Firefighter (5)
 Firefighter Type II (1)
 Ft. Apache 61 Crep (1)
 Hotshot Crew Member (1)
 I C (1)
 IC t3 (1)
 Jumper in Charge (1)
 Safety Officer (2)
 Strike Team Leader (1)
 T1 IMT SOFR (2)
 Type 2 Crew (1)
 EMT(1)
 ATGS
 C-1 Superintendent
 Strike Team Leader (T)
 ENGB
 Crew -Type 1

TASK

The tasks being performed by the SAFENET respondents are as follows:

Air Operation
 Center Manager
 Crew Safety
 Direct Mobile Attack
 Engine Boss
 Fire Line, IA, MopUp
 2 - Fire Suppression
 Hose Lay and Water Support
 IA Coordination
 INCM
 Investigation/Review
 6 - Line Construction
 Line Construction - IA
 Line Construction - Scouting, Burnout

Burn Out Island
 Completion of Work Capacity Test
 Current Red Card
 Driving
 Engine Operations
 Fire Management
 Hand Crew Support
 IA Bucket Work
 Incident Tfld
 IA Coordination
 Investigation/Structure Protection
 2 - Line Construction - Mop Up
 Line Construction - Helicopter water drops
 Line Construction - Support, Mop-up, Rehab

Line Construction - Burnout
 Line Protection
 2 - Mop-up
 Patrol/mop-up dozer lines
 Pre-positioning of Resources
 Securing Line & Burnout operations
 Support for Coconino NF
 Training
 Travel
 Helibase Support
 Line Construction, Air Ops
 Operations Supervisor(2)
 Size-up and Suppression
 IA, Line Construction, chainsaw use
 Transport off Helispot

Line Engine Support
 Manage 97T
 Packtest
 Structure, Holding, Burnout, safety zone
 Rehab Building Contour Structures
 Staging for IA
 Suppression
 Transport off helispot
 Ambulance Transport
 ATGS
 Structure Protection, Etc
 Cargo section of Helibase
 Camp Activities & Departure

MANAGEMENT LEVEL

Type 1 = 16
 Type 2 = 16
 Type 3 = 21
 Type 4 = 11
 Type 5 = 8

